

Remarks

Claims 1 – 8 are pending in this divisional application. The Examiner has rejected Claims 1 – 8 as being indefinite under 35 U.S.C. § 112. The Examiner has also rejected Claims 1 and 3-8 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,218,740 (hereafter “Dougherty”). Additionally, the Examiner has rejected Claim 2 under 35 U.S.C. § 103(a) as being obvious over Dougherty in view of U.S. Patent No. 5,333,971 (hereafter “Lewis”).

1.) Rejection of Claims 1-8 under 35 U.S.C. § 112 for Indefiniteness

Claims 1-8 have been rejected by the Examiner because of confusion as to how a corner is formed and the definition of interior angles. Specifically, the Examiner states that the joining of panels results in the formation of a wall. In response, Applicant has amended independent Claims 1 and 7 to claim “an interior angle and an exterior angle, where the interior angle is smaller than the exterior angle”.

Support for this amendment as well as an explanation of how a corner is formed is found in Paragraph 17 along with Figures 1 and 2 of the Application. Specifically, an individual *segment* is made up of a series of *panels*. The segments are then connected together to form a wall. In other words, the panels are sub-components of a segment. Multiple segments are attached together to form a wall. Figure 1 shows an overhead view of two joined sheet piling segments **10a** and **10b** in accordance with one embodiment of the present invention. In the present embodiment, each sheet **10a** and **10b** is made of three distinct panels **12** that are roughly configured in a “Z” shaped arrangement. Each panel fits with adjacent panels to form a corner **14** of the segment. The panels **12** form an angle of approximately 120° at each corner **14** (*Paragraph 17 of the Application*).

In summary, the formation and structure of a corner is properly defined and shown in Paragraph 17 and Figures 1 and 2 of the Application. The corner with an interior and exterior angle as shown in Figures 1 and 2 is formed at the point where panels of a segment of sheet piling come together. This structure is disclosed and claimed in the present Application. Consequently, withdrawal of this rejection is respectfully requested.

2.) Rejection of Claims 1 and 3-8 under 35 U.S.C. § 102(b) for Anticipation

Claim 1 has been rejected by the Examiner as being anticipated by Dougherty. The Examiner states that “Dougherty discloses a segment of sheet piling comprising a reinforcement (opposite 20, 21, that is convexly shaped) located at the angle between the panels”. Independent Claims 1 and 7 have been amended to claim a convex –shaped re-enforcement located at the interior angle of the corner. Applicant responds to this rejection as follows:

a.) Claim 1

Amended Claim 1 is an independent claim for a segment of sheet piling with two elements: a plurality of panels that are joined together at a corner with a smaller interior angle and a larger exterior angle; and a re-enforcement with a convex cross-sectional area that is located in the interior angle between the panels. An overhead view of two joined segments **10a** and **10b** is shown in Figure 1 of the application. Figure 2 shows a detailed view of the corner **14** between two panels **12** of the sheet piling segment. The re-enforcement **22** is centered on the corner **14**. It has a convex cross-sectional shape that maximizes the strength of the corner while optimizing the use of materials. The convex shape helps prevent bulging and rupturing of the sheet panel segments at the corners. *See* Pages 4 – 5, Paragraph 19 of the Present Application. As shown in Figures 1 and 2, the re-enforcement **22** is located on the interior angle of the corner **14** that is formed by the two panels **12** of the sheet piling segment. The interior angle is the smaller of the two angles formed by the corner **14**. The exterior angle is the larger of the two angles and does not have a convex re-enforcement in the present invention.

In contrast, Dougherty shows a sheet piling segment with a generally convex-shaped corner. However, the convex shape of Dougherty is on the exterior angle of the corner. Further, the convex shape is merely a rounded corner and not a re-enforcement as claimed. As shown in Dougherty’s Figure 1, the re-enforcements **20** and **21** are a concave shape that generally follows the line of the interior angle between the panels **17** -

19. The exterior angle has no re-enforcement, such as additional material, that is added to the corner.

In summary, Dougherty neither shows nor teaches a convex shaped re-enforcement that is located in the interior (*i.e.*, smaller) angle of the corner. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 1 for at least these reasons.

b.) Claims 3-6

Claims 3 – 6 are dependent claims. Each of these claims depends either directly or indirectly from independent Claim 1. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claims 3-6 for at least the reasons stated in Section 2.a.

c.) Claim 7

Amended Claim 7 is an independent claim for a segment of sheet piling with two elements: a plurality of panels that are joined together at an angle; and a means for re-enforcing the corner formed by the panels with a re-enforcement with a convex cross-sectional area. As discussed previously in Section 2.a., Dougherty neither shows nor teaches a re-enforcing means that is located in the interior (*i.e.*, smaller) angle of the corner. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 7 for at least these reasons.

d.) Claim 8

Claim 8 is dependent claim that depends directly from independent Claim 7. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 8 for at least the reasons stated in Section 2.c.

3.) Rejection of Claim 2 under 35 U.S.C. § 103(a) for Obviousness

The Examiner has rejected Claims 2 as being obvious over Dougherty in view of Lewis. The Examiner states that Dougherty discloses the claimed invention except for the sheet piling being made from anisotropic materials. The Examiner further states that

Lewis teaches the use of such materials and that it would be obvious to one of ordinary skill in the art at the time of invention to combine the two references.

Claim 2 is a dependent claim that depends directly from independent Claim 1. As discussed previously in Section 2.a., Applicant has shown the Dougherty does not disclose the claimed invention. Specifically, Dougherty neither shows nor teaches a convex shaped re-enforcement that is located in the interior (*i.e.*, smaller) angle of the corner. Consequently, the obviousness rejection over Dougherty in view of Lewis fails with respect to Claim 2 for at least these reasons.

4.) Conclusion

In view of the preceding remarks, the rejections of Claims 1-8 have been overcome. Therefore, Applicant respectfully requests the withdrawal of all outstanding rejections and an issuance of a Notice of Allowance for all pending claims.

Please apply any additional fees or credits to Deposit Account #: 50-0954,
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Respectfully Submitted,



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10/25/05
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